Pratyush Bindal

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Education

Birla Institute of Technology and Science, Pilani

Aug 2022 - July 2026

Bachelor of Engineering in Computer Science (CGPA: 9.61 / 10.00)

Hyderabad, Telangana

• Relevant Coursework: Data Structures and Algorithms, Database Systems, Object Oriented Programming, Operating Systems, Computer Architecture, Computer Networks, Machine Learning, Artificial Intelligence

G. D. Goenka Public School

April 2018 - July 2022

High School (Class XII: 96.6% and Class X: 97.6%)

Muzaffarnagar, Uttar Pradesh

Experience

Undergraduate Teaching Assistant — BITS F464 (Machine Learning)

Jan 2025 - May 2025

Birla Institute of Technology and Science, Pilani

Hyderabad, Telangana

 Designed topic-wise practice sheets and clarified conceptual doubts for over 150 students, ensuring academic clarity across complex ML topics

Summer Research Intern

May 2024 - July 2024

Indian Institute of Remote Sensing (IIRS), Indian Space Research Organisation (ISRO)

Dehradun, Uttarakhand

• Led a team of four in developing Transformer-based (Grounding DINO) and CNN-based (YOLOv8, v9, v10) computer vision models for ship detection and automatic feature extraction from satellite images

$\label{lem:undergraduate} \textbf{Undergraduate Teaching Assistant} - \textbf{PHY F111 (Mechanics, Oscillations and Waves)}$

Aug 2023 - Dec 2023

Birla Institute of Technology and Science, Pilani

Hyderabad, Telangana

Prepared reading materials, assisted in test conduction, and resolved academic queries for first-year students

Skills

Languages: C, C++, Java, Python, HTML, CSS, SQL, JavaScript, TypeScript, Prolog, Verilog HDL, Assembly

Technologies: TensorFlow, PyTorch, Spring Framework, React, SolidJS, Google Cloud Platform **Databases**: NoSQL, PostgreSQL & SQL-based databases like MongoDB, Supabase, Oracle MySQL

Projects

Reinforcement Learning In Cybersecurity | PyTorch, Python and related libraries

- Implemented AE-SAC and Twin Delayed DDPG (TD3) Algorithms on the NSL-KDD Dataset for Intrusion Detection
- Established ML-based Intrusion Detection System on the NSL-KDD Dataset to map alert-attack relations
- Comparatively evaluated various ML-RL algorithms for Fraud & Anomaly Detection on MQTT & AWID3 datasets

BITSBids | React, Spring Framework, Mongo DB, Maven

- Developed ready-to-scale Full Stack Bidding Website exclusive to BITSians via Google OAuth2 Authorisation
- Applied Dynamic Price Updation, Multiple Bids Prioritisation, Anonymous Chat Client, and Filtered Product Search

StarWars Databank | Typescript, SolidJS, Supabase, PL/pgSQL

- · Contributed to a DataBank Website for storing, analysing, and categorising information about the StarWars world
- Created Frontend using SolidJS & used PostgreSQL in Supabase for developing backend database system

Honours and Awards

- 100% Merit Scholarship Awardee (Awarded to Top 1% of the batch)
- 80% Merit-cum-Need Scholarship Awardee (Awarded to Top 3% of the batch)

Volunteership and Extracurriculars

Mathematics Mentor

Sept 2023 - Dec 2023

Academic Counselling Cell

Hyderabad, Telangana

• Mentored 1000+ students undergoing Mathematics I course at the institute

Research, Editorial and Events Member

Oct 2022 - Sept 2023

Ad Astra - Astronomy and Science Club

Hyderabad, Telangana

· Gained an insightful experience researching about recent advancements in Astronomy & Astrophysics